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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,376	01/22/2002	Gale D. Johnson	3123-399	5893
25231	7590	09/15/2004	EXAMINER	
MARSH, FISCHMANN & BREYFOGLE LLP 3151 SOUTH VAUGHN WAY SUITE 411 AURORA, CO 80014			KLIMOWICZ, WILLIAM JOSEPH	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/054,376	Applicant(s) JOHNSON ET AL.	
	Examiner William J. Klimowicz	Art Unit 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 and 50-85 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43-48, 50-56, 59-81 and 85 is/are allowed.
- 6) ☒ Claim(s) 1-5, 13-18, 23-25, 34-38, 57, 58 and 82-84 is/are rejected.
- 7) ☒ Claim(s) 6-12, 19-22, 26-33 and 39-42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 22, 2004 has been entered.

Claims 1-48 and 50-85 are currently pending.

Specification

The disclosure is objected to because of the following informalities:

With regard to page 15, line 19, the designator **111** as it applies to the “actuator arm latch assembly,” should be changed to the designator --**101**-- in order to remain consistent with the drawings and the preceding specification language.

With regard to page 19, line 20 and line 21 as well as page 23, line 6, the designator **114** as it applies to the “guide post,” should be changed to the designator --**214**-- in order to remain consistent with the drawings and the preceding specification language.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 13-17, 23-25, 34-37, 57, 58 and 82-84 are rejected under 35 U.S.C. 102(b) as being anticipated by Hickox et al. (US 5,623,384).

As per claims 1, 23 and 82-84, Hickox et al. (US 5,623,384) discloses a disk drive (e.g., FIG. 3), comprising: a housing (e.g., 10); at least one data storage disk (20) movably interconnected with said housing (10); an actuator arm assembly (40) movably interconnected with said housing (10) by an actuator arm pivot (45); an actuator arm drive assembly (including (80)) interconnected with said actuator arm assembly (40); a transducer (50) interconnected with said actuator arm assembly (40) and disposable in alignment with said at least one data storage disk (20) by said actuator arm drive assembly (124); and an actuator arm latch assembly comprising a latch pivot (210) and a first latch member (230) movably mounted on said latch pivot (210), wherein said latch pivot (210) is disposed in non-parallel relation to said actuator arm pivot (45) (FIG. 3 - see also COL. 5, lines 19-25), and wherein said first latch member (230) moves from a non-latching position to a latching position (e.g., after application of an external shock force to the disk drive) in response to said disk drive (10) being exposed to a first force while said transducer (50) is in a parked position or only in response to the disk drive being exposed to a shock event (e.g. see COL. 5, line 32 through COL. 6, line 17).

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As per claim 2, wherein said housing (10) comprises a base plate (onto which the components of the disk drive must be mounted).

As per claim 3, wherein said actuator arm assembly (40) is a rotary actuator arm assembly (FIG. 3).

As per claim 4, wherein said transducer (120) is a read/write transducer - COL. 2, line 65 through COL. 3, line 1.

As per claims 5, 23 and additionally, as per claim 82, wherein said housing (10) comprises the aforementioned base plate (lowest most surface which mounts (200)), wherein said first latch member (230) comprises a latch (235), wherein the first latch member (230) is movable between non-latching (e.g., position of (230) as being closest to base, or its lowermost position, to allow pin (240) to be uninhibited from movement during "unlatched" periods in a first direction) and latching positions (e.g., position of (230) as being farthest from base, or its uppermost position, to allow pin (240) to be inhibited from movement during "latched" periods) about said latch pivot (210), and wherein said latch (e.g., 235) is disposed further from said base plate when said first latch member (230) is in said latching position (uppermost position of (235)) versus said non-latching position (lowermost position of (235)).

As per claims 13 and 34, wherein said actuator arm latch assembly comprises means for latching (e.g., including (240) and (235)) said actuator arm assembly (40) when said disk drive (10) is exposed to a force selected from the group consisting of a linear force, a rotational force, and any combination thereof (e.g., a shock force).

As per claims 14 and 25, wherein a primary axis of said latch pivot (210) is disposed within a first reference plane (e.g. plane of base or disk (20)) that is at least generally

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perpendicular to a second reference plane (e.g., plane in which pivot (45) resides) that contains a primary axis of said actuator arm pivot (45) (e.g., FIG. 3).

As per claims 15 and 35, wherein said actuator arm latch assembly comprises means for biasing said first latch member (235) to a non-latching position (see COL. 5, line 28).

As per claims 16 and 36, wherein said actuator arm latch assembly (138) comprises a second latch member (e.g., 200) fixedly mounted to said housing (10), whereby said second latch member (200) does not move relative to said housing (10).

As per claims 17 and 37, wherein said latch pivot (210) is integrally formed with said second latch member (200 - see FIGS. 3 and 5).

As per claim 24, wherein said latch pivot (210) is disposed in non-parallel relation to said actuator arm pivot (45) (i.e., an axis about which said actuator arm assembly moves).

As per claims 57 and 58, wherein said actuator arm latch assembly further comprises a first inertial mass (e.g., the mass associated with (235)), wherein an acceleration of said first inertial mass due to the first force, as articulated in the rejection of claim 1, *supra*, causes said first inertial mass (including (235)) to exert a force on said first latch member (230) that attempts to move said first latch member (230) from said non-latching position to said latching position.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 18 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickox et al. (US 5,623,384).

See the description of Hickox et al. (US 5,623,384), *supra*.

With regard to claims 18 and 38, although Hickox et al. (US 5,623,384) remain silent with respect to the composition of the first and second latch member as being plastic, Official notice is taken that plastic latch members used in disk drives are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the latch members of Hickox et al. (US 5,623,384) as being conventional plastic.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the latch members of Hickox et al. (US 5,623,384) as being conventional plastic in order to provide a latch assembly that can be easily manufactured in an inexpensive manner, while providing a durable and lightweight non-magnetic material for support, as is known in the art.

Allowable Subject Matter

Claims 6-12, 19-22, 26-33 and 39-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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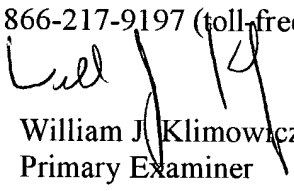
Claims 43-48, 50-56, 59-81 and 85 are currently allowable in the manner presently set forth in the claims, over the applied art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (703) 305-3452. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William J. Klimowicz
Primary Examiner
Art Unit 2652

WJK